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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,412	06/29/2001	Peter Q. Herman	P/ 3632-5	6026
24998	7590	03/08/2004	EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP 2101 L STREET NW WASHINGTON, DC 20037-1526			MANOSKEY, JOSEPH D	
			ART UNIT	PAPER NUMBER
			2113	3

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/893,412	HERMAN, PETER Q.
	Examiner Joseph Manoskey	Art Unit 2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 29 June 2001.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-13 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-13 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 29 June 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. New corrected drawings are required in this application because the drawings are informal and the conditions of the figures make them difficult to read especially after they are scanned for publication. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  3. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 8, 10, and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 8 recites the limitation "the hierarchy" in line 3. There is insufficient antecedent basis for this limitation in the claim.

6. Claims 10 and 11 recite the limitation "the database" in line 2 of both respective claims. There is insufficient antecedent basis for these limitations in the claims. Claim 10 and 11 are dependent upon claim 1, which includes two different databases, and there is insufficient antecedent basis to determine which database is being referenced in these two limitations.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott, Jr. et al., U.S. Patent 5,214,653, hereinafter referred to as "Elliott" in view of Sirowitzki et al., U.S. Patent 6,244,174 et al., hereinafter referred to as "Sirowitzki".

9. Referring to claim 1, Elliott discloses a fault finder expert system includes a data storage means (See Fig. 1 and Col. 2, lines 40-43). Elliott also discloses the system containing two databases, a knowledge base, which is interpreted as generic database, and a LRU database, that includes specific data concerning the operations of the LRU's of the target system, which is interpreted as a specialized database for user-specific operations (See Fig. 1 and Col. 3, line 51 to Col. 4, line 5). Elliott discloses the system having a main control module that provides an interface to a user and the system being

implemented on a personal computer, this is interpreted as an interactive data entry interface (See Fig. 1, and Col. 3, lines 39-45). Elliott teaches the system including an expert system shell for processing and displaying conclusions to the user through a main control module (See Col. 3, lines 46-50). Elliott does not teach the system being a diagnostic system for a printing press, however Elliott does describe the system in a generic sense and provides various examples of possible target systems (See Col. 3, lines 56-59). Sirowitzki discloses a diagnostic system for a printing machine (See Fig. 2, and Col. 3, lines 65-66). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the diagnostic systems of Elliott and Sirowitzki. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because system determines the necessity of maintenance (See Sirowitzki, Col. 10, lines 21-26).

10. Referring to claim 2, Elliott and Sirowitzki disclose all the limitations (See rejection of claim 1) including the interface including inputs for submitting print jobs. Sirowitzki teaches the system planning for future printing jobs (See Col. 4, lines 10-11).

11. Referring to claim 3, Elliott and Sirowitzki disclose all the limitations (See rejection of claim 2) including capabilities for determining the appearance of the print jobs. Sirowitzki teaches having information relating to production planning or future print jobs (See Col. 5, lines 23-27).

12. Referring to claim 4, Elliott and Sirowitzki disclose all the limitations (See rejection of claim 1) including the user entering problem symptoms. Elliott teaches the user entering data including the state of the target system, this is interpreted as the user entering symptoms of the faults of the system (See Col. 4, lines 31-32).

13. Referring to claim 5, Elliott and Sirowitzki teach all the limitations (See rejection of claim 1) including the entering problem classification. Sirowitzki discloses the classification of problems concerning components of the printing machine (See Col. 7, lines 51-57).

14. Referring to claim 10, Elliott and Sirowitzki teach all the limitations (See rejection of claim 1) including the access to data in the database on components and subcomponents. Elliott teaches an LRU database that contains definitions of the lowest replaceable unit of the target systems. Elliott also teaches that LRUs maybe contain other LRUs, this interpreted as components and subcomponents (See Col. 3, line 61 to Col. 4, line 5).

15. Referring to claim 11, Elliott and Sirowitzki disclose all the limitations (See rejection of claim 1) including a user input for cause and effect information to the database. Elliott discloses the user verify that a conclusion was correct, thus updating the information of the cause of the fault (See Col. 2, lines 59-63).

16. Referring to claim 12, Elliott discloses a fault finder expert system includes a data storage means (See Fig. 1 and Col. 2, lines 40-43). Elliott discloses the system having a main control module that provides an interface to a user and the system being implemented on a personal computer, this is interpreted as an interactive data entry interface (See Fig. 1, and Col. 3, lines 39-45). Elliott also discloses the system containing two databases, a knowledge base, which is interpreted as system level database, and a LRU database, that includes specific data concerning the operations of the LRU's of the target system, which is interpreted as a user level database for user-specific operations (See Fig. 1 and Col. 3, line 51 to Col. 4, line 5). Elliott teaches the user entering data including the state of the target system, this is interpreted as the user entering symptoms of the faults of the system (See Col. 4, lines 31-32). Elliott does not teach the system being a diagnostic system for a printing press, however Elliott does describe the system in a generic sense and provides various examples of possible target systems (See Col. 3, lines 56-59). Sirowitzki discloses a diagnostic system for a printing machine (See Fig. 2, and Col. 3, lines 65-66). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the diagnostic systems of Elliott and Sirowitzki. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because system determines the necessity of maintenance (See Sirowitzki, Col. 10, lines 21-26).

17. Referring to claim 13, Elliott discloses a fault finder expert system includes a data storage means (See Fig. 1 and Col. 2, lines 40-43). Elliott also discloses the system

containing two databases, a knowledge base, and a LRU database, that includes specific data concerning the operations of the LRU's of the target system (See Fig. 1 and Col. 3, line 51 to Col. 4, line 5). Elliott discloses the system having a main control module that provides an interface to a user and the system being implemented on a personal computer, this is interpreted as an interactive data entry interface (See Fig. 1, and Col. 3, lines 39-45). Elliott discloses the performing an inference process, or diagnostic session using the user interface (See Col. 4, lines 31-32 and 40-41). Elliott teaches making a final conclusion, interpreted as a potential solution, from the rules of the knowledge base (See Col. 39-43). Elliot also discloses updating the database (See Col. 2, lines 59-65). Elliott does not teach the system being a diagnostic system for a printing press, however Elliott does describe the system in a generic sense and provides various examples of possible target systems (See Col. 3, lines 56-59). Sirowitzki discloses a diagnostic system for a printing machine (See Fig. 2, and Col. 3, lines 65-66). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the diagnostic systems of Elliott and Sirowitzki. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because system determines the necessity of maintenance (See Sirowitzki, Col. 10, lines 21-26).

18. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott and Sirowitzki in view of Rasmussen et al., U.S. Patent 6,608,932, hereinafter referred to as "Rasmussen".

19. Referring to claim 6, Elliott and Sirowitzki teach all the limitations (See rejection of claim 1) except for the indicating print faults using an image-based approach.

Rasmussen discloses diagnosing problems of printers concerning image quality, by evaluating the image quality (See Col. 2, lines 21-23 and 39). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the image quality evaluation of Rasmussen with the diagnosis system of Elliott and Sirowitzki. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because image quality analysis can be performed to monitor many aspects of the printed output of the printing system (See Col. 2, lines 39-42).

20. Referring to claim 9, Elliott and Sirowitzki teach all the limitations (See rejection of claim 1) except providing the user with an image of the print fault. Rasmussen teaches evaluation of image quality of printed output of a printing system (See Col. 2, lines 39-41). This outputted print, when the printing system has encountered a fault, is interpreted as providing the user with an image of the print fault. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the image of the print fault of Rasmussen with the diagnostic system of Elliott and Sirowitzki. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because it allows a user to judge the quality of the image and determine if a fault has occurred (See Rasmussen, Col. 1, lines 26-30).

21. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elliot and Sirowitzki in view of Shimomura et al., U.S. Patent 5,515,503, hereinafter referred to as "Shimomura".

22. Referring to claim 7, Elliot and Sirowitzki disclose all the limitations (See rejection of claim 1) except they are silent on the format in which the data related to the print fault is displayed, specifically to being a hierarchical format. Shimomura teaches cases system ("CBS") for faults classified hierarchically (See Col. 4, lines 50-56). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the displaying of faults of Elliot and Sirowitzki with the CBS hierarchical format of Shimomura. This would be obvious to one of ordinary skill in the art at the time of the invention to do because the CBS allows work to be done more rapidly (See Col. 2, lines 43-47).

23. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott and Sirowitzki in view of Spoto et al., U.S. Patent 5,539,869, hereinafter referred to as "Spoto".

24. Referring to claim 8, Elliott and Sirowitzki teach all the limitations (See rejection of 1) except for the diagnostic system comprising inputs for adding links to multimedia files. Spoto teaches diagnostic system that has diagnostic knowledge and support information (i.e. drawings and video), which is stored (See Col. 4, lines 1-5). Spoto also

discloses assigning or mapping the multimedia information for each of the diagnostic nodes, interpreted as linking (See Col. 4, lines 53-63). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the multimedia links for diagnostic support information of Spoto with the diagnostic system of Elliott and Sirowitzki. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because it eliminates the any possible loss of the information at a later time (See Spoto, Col. 2, lines 33-36).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Manoskey whose telephone number is (703) 308-5466. The examiner can normally be reached on Mon.-Fri. (8am to 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDM  
March 3, 2004



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